Request to Archive
With The National Centers for Environmental Information
For Streamflow drought indicators across conterminous United States
Provided by University of Colorado / NRL

2015-10-01

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

University of Colorado, Department of Civil Engineering

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

Historical datasets for important indicators of streamflow droughts were developed for the locations within the conterminous US. We used 603 stations with between 25 to 111 years of daily streamflow data from Hydro-Climatic Data Network 2009 (HCDN-2009), developed by the U.S. Geological Survey (USGS). Dataset is organized in three different categories : low flow characteristics (in annual times scale), deficit characteristics (annual, Northern summer, Northern winter, and 12 calendar months), and streamflow drought characteristics (in annual times scale) from 1901 to 2012.

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 1901 to 2012

5. Edition or version number(s) of the dataset:

V1

6. Approximate date when the dataset was or will be released to the public:

2015-12

7. Who are the expected users of the archived data? How will the archived data be used?

Hydro-meteorologists, Hydrologists, Water resources managers, Hydro-climatologists, Climatologists, Engineers, Water decision makers, Water policy makers, (Water) Geoscientists, Water scientists

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

We have published an analysis of the data in Climatic Change journal. We are intending to publish this dataset in Nature Scientific Data journal.

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

This is a new dataset for streamflow drought indicators that primarily uses USGS daily streamflow data.

10. List the input datasets and ancillary information used to produce the data.

This research used daily streamflow data derived by Hydro-Climatic Data Network 2009 (HCDN-2009) (Lins, 2012) from 1900 to 2013.

11. List web pages and other links that provide information on the data.

Lins HF. USGS Hydro-Climatic Data Network 2009 (HCDN-2009). U.S. Geological Survey 2012. Fact Sheet 2012-3047.4 p. http://pubs.usgs.gov/fs/2012/3047/.

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. Data format specifications.doc
   User guides. doc
   algorithm documentation. doc
   Data format: xlsx (or csv) and mat
   Source code. mat

13. Indicate the data file format(s).

1. CSV
2. MAT

14. Are the data files compressed?

WinZip

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

Data is organized in the following time frames: Annual, Northern Summer, Northern Winter, as well as 12 month of climate year (April, May, June, August, September, October, November, December, January, February, March). We have three different characteristics: low flow characteristics, deficit characteristics, and streamflow drought characteristics for the major watershed regions of the Conterminous US from 1901 to 2012. For example, the variable name and description for one lowflow indicator in annual time frame is: annual _q7_1901.2012 (Annual time series of minimum 7 days mean streamflow). We have the same pattern for others time frame and characteristics. For example, Annual time series of cumulative streamflow deficit duration for 10q30 threshold level is named as annual_deficit_cdd.10q30_1901.2012 or Time series of drought duration for q90th threshold level is named as drought_cd.q90th_1901.2012

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

Please find two samples in the following dropbox link :
https://www.dropbox.com/sh/pavzmztkcjmd3k8/AACkF8S8tTt2FJkdVMaQg5Y3a?dl=0

17. What is the total data volume to be submitted?

Historic Data: all historic data or data submitted as a completed collection.

Total Data Volume: 55MB
Number of Data Files: 924

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

No additional updates, revisions or replacement data are anticipated.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: Denver, Colorado
System Name: University of Colorado
System Owner: University of Colorado
Additional Information:

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

dropbox link

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. Direct download links

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

Constraint Type	Description
Use	We have published an analysis of the data in Climatic Change journal. We are intending to publish this dataset in Nature Scientific Data journal.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

Potential users will not have to create the datasets from scratch. Usable indicators are readily available for scientific study as well as other usage.

24. Are the data archived at another facility or are there plans to do so? Please explain.

No

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

No

26. Do you have a data management plan for your data?

No

27. Have funds been allocated to archive the data at NCEI?

No

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

N/A

29. Is there a desired deadline for NCEI to archive and provide access to the data?

Archive by:	2015-10-30
Accessible by:	2015-11-31

30. Add any other pertinent information for this request.

None